



The effect of tourism and legalization policies on summer pasture in Turkey

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Keywords

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ABSTRACT

In Turkey, according to Pasture Law, land allocated for farmers to spend the summer with their animals, graze their animals and benefit from grass is defined as “summer pasture (yaylak in Turkish).” Summer pasture is of national importance for its biodiversity, landscape, cultural heritage and transhumance. However, especially after 1990s, the summer pasture areas have been extensively used in tourism activities in Turkey. By changing land use, the increasing tourism activities combined with legal uncertainties and the legalization policies have caused summer pasture areas transferred into built-up areas. The effect of the tourism and legalization policies on the land use changes in summer pasture areas was evaluated in this study. It was determined that Turkey’s tourism and legalization policies have adverse effect on sustainable use of summer pasture areas. These policies aimed at economic development and solving property problems of rural areas caused new legal problems and expansion of built-up areas. A better land use policy and an effective control mechanism are necessary for the sustainable use of summer pasture areas.

1. INTRODUCTION

Land policy is comprised of all socio-economic and legal regulations that determine how the benefits obtained from the land are allocated; it is related to the subjects of sustainable management of natural resources and environment and of resolution of land disputes. Land policy is an important part of national policies to realize the targets of economic development, social justice, equity, and political stability (UNECE 1996). Reasons such as the insufficient registry of rights related to land resources, weak legal regulations, and the absence of customary/traditional land use rights in land administration systems lead to the disputes over land use by making land management difficult (UN-FIG 1999; Steudler and Kaufman 2014). The land is the basis of all vital and economic activities. Land is used for activities such as agriculture, forestry, transportation and shelter, and land use changes over time depending on these activities. These changes in land use cause many environmental problems such as climate change, biodiversity reduction, air, water and soil pollution (EEA 2010).

Summer pasture (yaylak in Turkish), one of the significant resources of Turkey, has been defined in the Pasture Law as land for farmers to occupy in summers with their animals, to graze animals, and to benefit from

the grassland. To define similar land, the European Union (EU) uses the term “Less Favored Area” (LFA) (EEC 1999). LFA refers to areas where farming has become less profitable due to harsh climate, high altitude, short growing season and poor soil fertility. In addition, in some studies carried out in the UK, the areas where farming has become marginal because of productivity limiting factors such as steep slopes, high altitudes, harsh climate and distance from markets have been named as ‘uplands’ (Reed et al. 2009; Acs et al. 2010; Hardaker 2018). Since the EU and UK definitions covers more broad land which also include summer pasture areas, the term of ‘summer pasture’ hereafter will be used in this study because of its suitability for Turkish laws and habitat. Summer pasture areas exist in many parts of the world are of great importance in terms of biodiversity (Koch et al. 2013; Jerrentrup et al. 2016), landscape and cultural heritage (Herzog et al. 2009), nutrition and livelihood (Danachair 1983; Zendri et al. 2013). Moreover, summer pasture areas provide climate regulation through carbon storage and renewable energy supplies (Nettier et al. 2017), clean water supplies and recreation opportunities (Hubacek et al. 2009).

Summer pasture areas are present in nearly all regions of Turkey, and they contribute greatly to the country’s livestock production by providing forage. However, the summer pasture areas used for livestock

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grazing in the past have begun to be used frequently in tourism, vacation and leisure activities due to the decrease in the population of farmers and migration. As a result, there have been important changes in land use in the summer pasture areas in Turkey.

Studies aimed at examining the land use / land cover changes of pasture areas have been carried out in various countries (Merry et al. 2002; Schulz 2015; Kosmas et al 2015; Cohn et al. 2016; Akale et al. 2017; Minotti et al. 2018; Guo et al. 2019; Iversen et al. in press; Schaak and Musshoff in press; James and Lovelock in press; Upadhaya and Dwivedi 2019). Nevertheless, research to determine the impact of tourism and legalization policies on land use changes on summer pasture areas is needed considering the registration of land use rights of summer pasture areas in land registration system in Turkey.

After the introduction, in the second section, current situation of registering the legal status of land use in summer pasture areas in Turkey was examined. In the third section, the impact of tourism policies on the summer pasture areas is evaluated by examining the "Green Road Tourism Project" aims for connecting summer pasture areas of Eastern Black Sea Region in Turkey. By examining the legalization process of informal settlements in Turkey, effect of this process on summer pasture areas is evaluated in the fourth section. Finally, the study ends with conclusions in section 5.

2. REGISTRATION OF THE LEGAL SITUATION IN SUMMER PASTURE AREAS

2.1. Ottoman Empire Period

Summer pasture was always great importance to sustain livestock activities and provide tax revenue from these activities during the time of Ottoman. The roots of the current legislation regarding management of summer pasture go back to the Ottoman Empire era. For a better management, the land was divided into five classes in the Ottoman time with respect to their use by the Land Law (Arazi Kanunnamesi) declared in 1858. These classes were as follows (the Turkish terms are added in italic, in brackets) (Biyik et al 2018; Biyik and Yavuz 2006):

- State land (Miri)
- Private land (Mülk)
- Waqf land (Vakıf)
- Tribal and collective land (Metruk)
- Waste land (Mevat)

State land comprised the portion of land with agricultural potential. Administration of these land, also called *fief* (*dirlik*), was left to Ottoman statesmen and officials in return of certain services. Private land was the land that held by individual ownership. Waqf land was land that their income was allocated to the expenses of institutions serving the community such as mosques, madrasahs, hospitals, inns and bathhouses. Tribal and collective land included non-agricultural land such as pasture, grasslands, summer pasture, winter quarters, roads, bridges, squares, bazaar and fair places. Entire community or the village/town community to which it was allocated could benefit from this land. Waste land was the land that cannot be used in effective way. Such

land is rocky and clay areas (Biyik and Yomralioglu 1994; Biyik and Yavuz 2006).

According to this classification, summer pasture was considered in the collective land class during the Ottoman period. In the 104th article of the Land Law, the summer pasture was defined as the land used in summer season and abandoned at the end of the season. The same article stated that the property of summer pasture belongs to the State Treasury and it cannot be bought or sold and cannot be registered to someone; however, their use could be assigned to a group of people or to a village/town (Cin 1980). The article defined the use of summer pasture as follows: "Only the village/town to which the summer pasture is allocated can benefit from there for grazing. Livestock husbandry activities of other villages or towns in the pasture are not allowed. Summer pasture cannot be sold or pledged. Even a certain village/town community uses the summer pasture without permission for a long time this cannot result in losing the rights of the first user. The beneficiaries of the summer pasture cannot change its borders and cannot assign all or some part of the summer pasture to others." As a result, from legal point of view, there could be no individual property on summer pasture. Only the village and town community, to whom the summer pasture was allocated, had a usufruct right (Ekinçi, 2019).

2.2. Republic of Turkey Period

After the Declaration of Republic (1923), the summer pasture was firstly defined in the Village Law (Köy Kanunu), which was put into practice 1924. The second article of the law stated that settlements consisting of collective public real estate such as mosque, school, grassland and summer pasture form a village with the people living in these settlements. In those times, it was possible to border and allocate a summer pasture in case of prolonged use of it could be proven by documents, information, and witnesses. In Turkey, documents indicating the rights and boundaries related to the summer pasture areas are kept in the archive of the General Directorate of Land Registry and Cadastre (GDLRC). These documents are the counterparts of records defined from 1925 to 1967, in situ, in relation with borders and the counterparts of allocation orders pertaining to the areas which were determined by the commissions as meadow/pasture, summer pasture and winter quarters and allocated to the entities of village for common use and utilization by villagers. There are village border certificates and pasture allocation orders for 31695 villages at the archive of GDLRC. Figure 1 illustrates examples of these documents. These documents have been used in solving disputes related with village borders and areas such as meadow/pasture, summer pasture and winter quarters, etc. Furthermore, in villages, each one of which constitutes an area of cadastral survey, in surveys carried out for determination of borders, these documents have been used.

Table 1 lists the laws, which includes articles related to summer pasture, enacted during the Republic of Turkey period.

Table 1. Laws and their provisions on summer pasture

Year	Law Name	Scope of law provisions
1924	Village Law (Köy Kanunu)	Classification, boundary surveying, status changes over summer pasture
1930	Municipality Law (Belediye Kanunu)	Definition of summer pasture, rights of use on summer pasture areas and registration of summer pasture
1956	Forest Law (Orman Kanunu)	Status loss of summer pasture, assigning authorized institution for summer pasture, planning, restrictions on summer pasture areas and penalties
1973	Soil and Agricultural Reform Law (Toprak ve Tarım Reformu Kanunu)	Surveying, registration and allocation of summer pasture, establishment right of usufruct, restrictions on summer pasture areas
1982	Tourism Promotion Law (Turizmi Teşvik Kanunu)	Allocation of summer pasture for tourism activities, summer pasture tourism
1983	Law Regarding Support of Development of Forest Villagers (Orman Köylülerinin Kalkınmalarının Desteklenmesi Hakkında Kanun)	Planning of summer pasture areas
1984	Agricultural Reform Law Regarding Land Regulation in Irrigation Regions (Sulama Alanlarında Arazi Düzenlenmesine Dair Tarım Reformu Kanunu)	Definition of summer pasture
1985	Law Regarding Services Oriented for Villages (Köye Yönelik Hizmetler Hakkında Kanun)	Surveying, registration and allocation of summer pasture, assigning authorized institution for summer pasture
1985	Law Regarding Establishment and Missions of General Directorate of Agriculture Reform (Tarım Reformu Genel Müdürlüğünün Kuruluş ve Görevleri Hakkında Kanun)	Preparation of improvement projects and assigning authorized institution for summer pasture
1987	Cadastre Law (Kadastro Kanunu)	Surveying, registration and allocation of summer pasture
1998	Pasture Law (Mera Kanunu)	Definition of summer pasture, surveying, registration and allocation of summer pasture, rights, restrictions and responsibilities on summer pasture areas
2000	Law Regarding Transmitting of Petroleum with Pipelines (Petrolün Boru Hatları İle Transit Geçişine Dair Kanun)	Status change of summer pasture, assigning authorized institution, expropriation of summer pasture
2005	Law Regarding Use of Renewable Energy Resources for Electricity Production (Yenilenebilir Enerji Kaynaklarının Elektrik Enerjisi Üretimi Amaçlı Kullanımına İlişkin Kanun)	Status change of summer pasture, establishment of easement rights on summer pasture areas
2013	Electricity Market Law (Elektrik Piyasası Kanunu)	Status change of summer pasture, establishment of easement rights on summer pasture area

The third article of the Pasture Law defines the summer pasture as a place where allocated or used for the farmers to reside in the summer with their livestock, to graze their livestock and to benefit from the grass. The next article of the law describes of the beneficiaries of the summer pasture. Accordingly, right for using/benefiting of summer pasture belongs to one or more than one village community. The same article also provides the provision that summer pasture must not be subject to private property. In addition, according to the 22nd article of the law, it is obligated that in order for farmers to be benefited from a summer pasture they have to reside in the village, in where summer pasture situated, for six months. On the other hands, the types of building permitted and not permitted in the summer pasture areas are defined in the 20th article the Pasture Law. According to this article, the buildings/constructions permitted in the summer pasture areas are listed as follows: (1) constructions permitted in the Village Law numbered 442, (2) constructions built with the permission from governorship complying with the zoning legislation such as dairy, porch, shelter, and pen (fit for purpose and non-permanent) and (3) wooden constructions in summer pasture areas that are opened to tourism activities upon the request of the Ministry of Tourism. Except from those listed above, it is forbidden

to build houses, barns and similar constructions on the summer pasture areas.

A workflow diagram regarding the registration of legal status of summer pasture (also called pasture cadastre) is shown in Figure 2. It begins with the determination and approval of the study areas by the Ministry of Agriculture and Forestry (MAF). Then, a commission is established with the approval of the Governorship in the province where the study will be conducted. This commission (pasture commission) consists of the following members: a deputy governor (head of the commission), provincial director of agriculture, an agricultural engineer, representatives from the General Directorate of State Hydraulic Works, General Directorate of Forestry and General Directorate of National Real Estate, a lawyer, a surveyor from the Provincial Directorate of Cadastre, a representative in the general law enforcement unit and reeve of the related village (in Turkey, reeve is an elected chief executive in villages and district municipalities). After the establishment of the commission, the field study area and field study date are announced to the public thirty days before the initiation of the field study. At the same time, the commission initiates preparatory works, sends letters to relevant institutions, and requests information and documents from the institutions about the summer

pasture. After the preparatory work is completed, a technical team is formed to carry out the determination and surveying studies in the field. The technical team consists of an agricultural engineer, a surveyor, a forest engineer, relevant village reeve, representatives from relevant institutions, and local experts. The technical team determines and surveys the boundaries of summer pasture and draws the boundaries on a map at a scale of 1/5000. The results of the technical team’s field studies are declared for thirty days together with the maps, and,

if no objection against the declaration is made, maps and related documents are submitted to the GDLRC and to the Provincial Directorate of MAF for registration. If there is an objection, the commission evaluates the objection within sixty days and announces its decision at the end of that period. The decision of the commission is then declared for thirty days. A lawsuit can be filed against this commission decision within thirty days. In this case, the registration takes place after the decision of court.

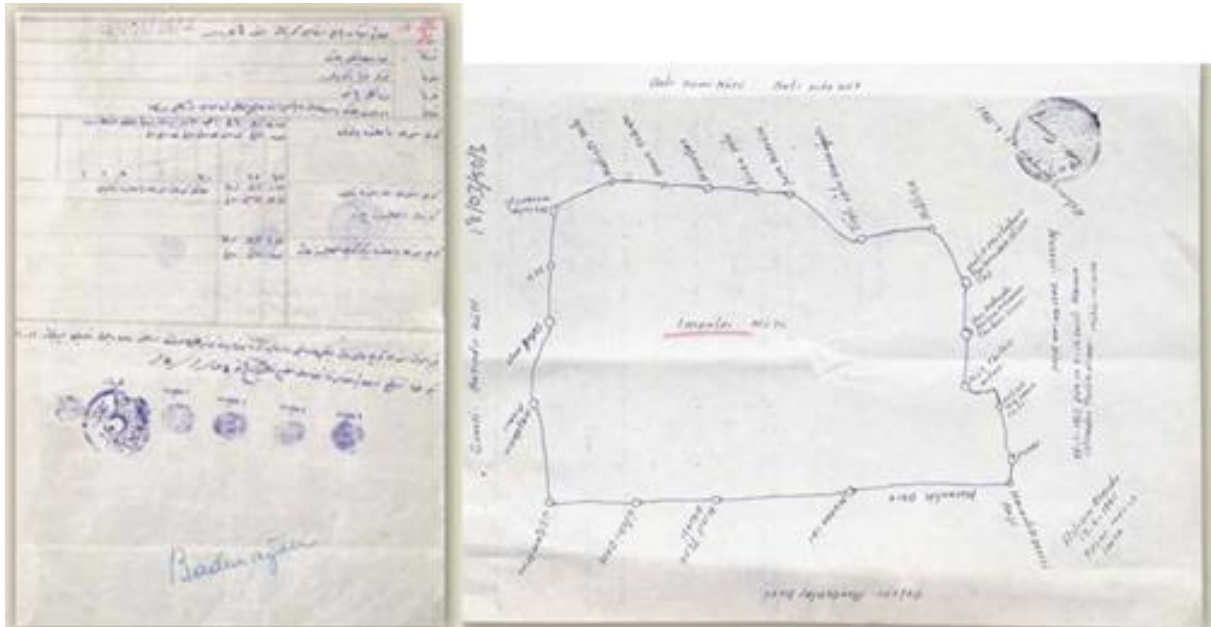


Figure 1. Certificate of summer pasture allocation decision written with old letters (left), plan certificate of the allocation decision (right) (Torun et al. 2010).

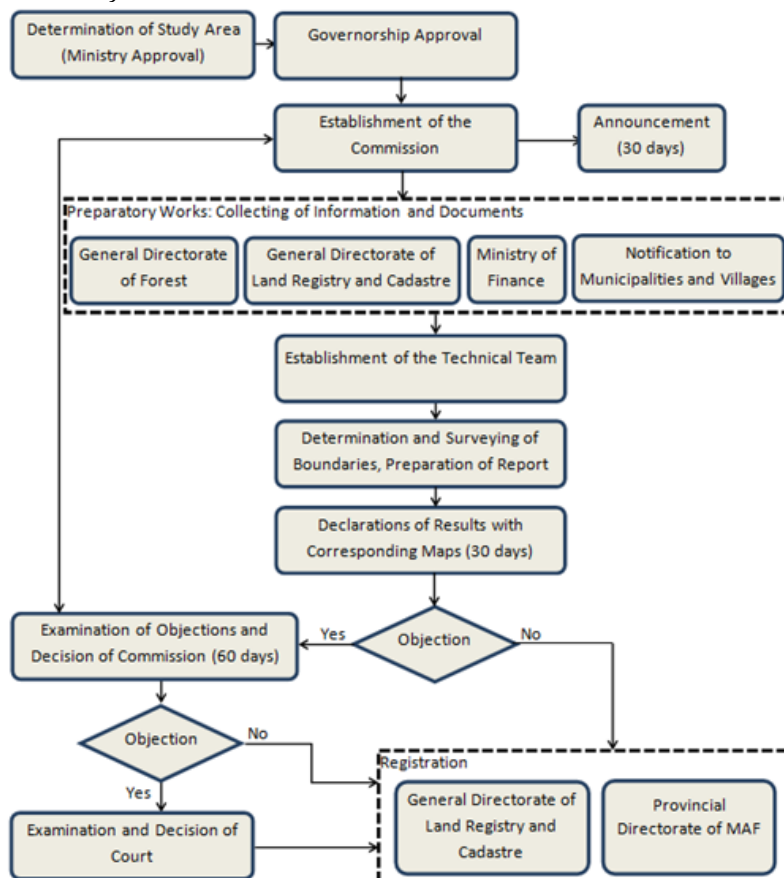


Figure 2. Flow chart of registration the legal status of summer pasture

3. EVALUATION OF THE EFFECT OF TOURISM POLICY ON SUMMER PASTURE

Summer pasture areas are temporary settlements where farmers began to send their flocks and herds to feed in spring, bringing them down again when winter closed in. The seasonal practice of moving livestock from and to summer pasture is called as transhumance. The transhumance tradition continues in Turkey for centuries. The livestock movement from villages to summer pasture typically begins in April and this movement reverses in end of September/October in Turkey. In addition to traditional transhumance activities, there are also increasing tourism and recreation activities in the summer pasture areas in recent years. The summer pasture areas are frequently used for these activities which occur as staying of city people for a certain period of time (Somuncu 2003).

Tourism activities carried out on summer pasture areas in Turkey began to be seen for the first time in the early 1990s. Based on the Tourism Promotion Law, the Ministry of Tourism (MOT) declared 12 summer pasture areas in the Black Sea Region as a tourism center in 1990 and environment plans were prepared for these areas

(Bay 2014; OG 1990). As of 2019, the number of the centers has reached 21, of which 18 are located in the provinces in the Black Sea Region (Figure 3, MOT, 2020). However, utilization of summer pasture areas for tourism activities was first taken place in the long-term tourism policy of Turkey early 2000s. With the amendment made in the Tourism Promotion Law in 2004, the statement "The allocation purpose of pasture, summer pasture areas and winter quarters in the cultural and tourism protection and development zones can be changed according to the provisions of the Pasture Law No. 4342 dated 25.2.1998" was added to the law. The "Turkey 2023 Tourism Strategy Action Plan was prepared by MOT in 2007 and the region between Samsun and Artvin provinces in Black Sea Region declared as 'summer pasture tourism zone' in this plan (Figure 3). In this action plan, it was stated that until end of 2013, studies will be started to establish the infrastructure for the development of summer pasture tourism. In order to ensure this infrastructure, targets such as building new roads, improvement of the current transportation network and preparation of route maps with the theme of "summer pasture tourism" have been determined (OG 2007).



Figure 3. Summer pasture tourism center and the "summer pasture zone" declared by MOT

In 2013, the Ministry of Development launched the 'Green Road Project' to be carried out by the Eastern Black Sea Region Development Administration (DOKAP) in order to realize the targets, set out in the action plan published in 2007. This project has been described as a nature-integrated tourism project aiming to connect important summer pasture and tourism centers of eight provinces (Artvin, Bayburt, Giresun, Gümüşhane, Ordu, Rize, Samsun, Trabzon) in the Eastern Black Sea Region. The Green Road Project, which is planned to be completed by 2023 within the scope of the DOKAP action plan, consists of a 4000 km road network in total. As of 2019, 1300 km road improvement works have been completed by DOKAP. Within the scope of the road improvement works, 285 km of roads were covered with asphalt, 177 km of roads were made with stabilized coating, 99 km of roads were covered with concrete, 18 km of roads were covered with parquet, and the rest were maintained and repaired. The remaining 2700 km section is planned to be completed by the General

Directorate of Highways and DOKAP until 2023 (DOKAP 2020). One of the main objectives of the Green Road Project is to increase the demand for tourism activities carried out on summer pasture areas, which is currently limited to certain months of the year, by improving the standard of the road network. In addition, the summer pasture areas to be connected to each other by a road network in the east-west direction are expected to offer more alternatives to the tourists coming to the region. Facilitating the transportation of the transhumance framers and improving the income level of local people are some other goals of the projects. In Figure 4, the planned road network for Gümüşhane province, which is one of the eight provinces within the scope of the Green Road Project, are shown on the tourism master plan. With the Green Road Project, roads that are planned to be built/improved with the first, second and third priority are shown on the master plan in green, pink and blue colors, respectively.

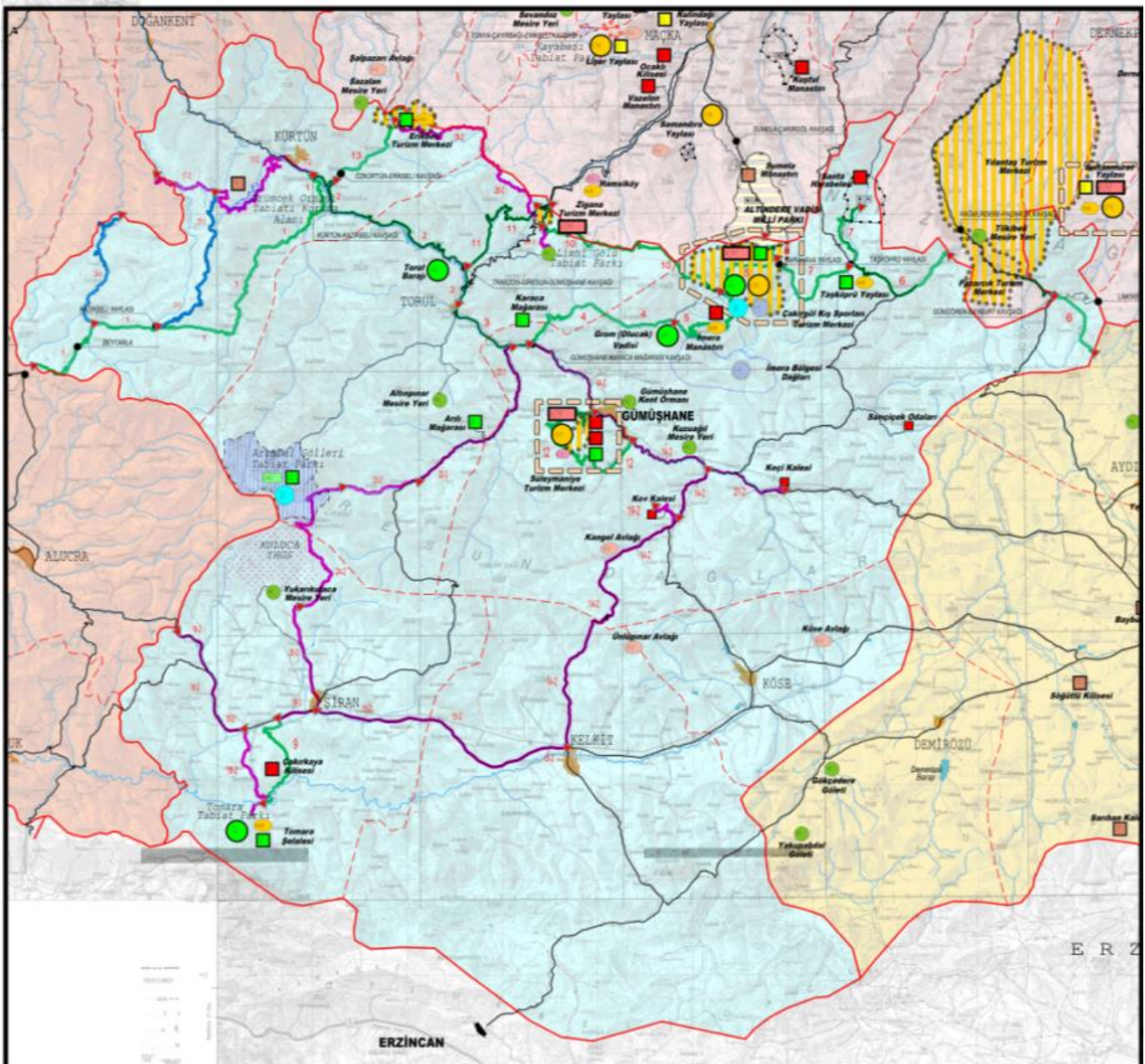


Figure 4. Green road network of Gümüşhane Province on tourism master plan (roads planned to be built/improvement with the first, second and third priority are shown on the master plan in green, pink and blue colors, respectively)

In order to evaluate the effect of tourism policy on summer pasture areas, the land use / land cover (LULC) changes of the provinces in the Eastern Black Sea region were examined. For this examination, CORINE (Coordination of Information on the Environment) 2006 and 2018 LULC data was used. CORINE is a program launched in 1985, aiming to collect information for the EU on priority issues related to the environment. Since 1994, the European Environment Agency (EEA) has included CORINE in its program. CORINE data refers to LULC data produced by computer-aided visual interpretation method over satellite images according to the LULC Classification determined by EEA (Heymann et al. 1994; Bossard et al. 2000). In Turkey, LULC data for 1990, 2000, 2006, 2012, 2018 and data sets for showing LULC changes between these years has been created so far. The CORINE LULC classification system is a three-level classification, consisting of 5, 15, 44 sub-LULC classes, respectively. Pastures areas are in the sub-LULC class expressed as 2.3. CORINE LULC maps and statistics

can be accessed via the web portal of the MAF in Turkey. (MAF 2020).

In Table 2, based on the CORINE 2006, 2012 and 2018 LULC data, changes in pasture areas of Eastern Black Sea provinces and whole country are given. When Table 2 is examined, it is seen that the total pasture areas of the 7 provinces in the Eastern Black Sea region decreased by 3183,79 ha in 2018 compared to 2006. This area reduction corresponds to a 5.3% decrease in total pasture areas. In the same period, on the other hand, total pasture areas of the country was 2009092,5 ha by increased 1.7%. It should be note that summer pasture areas are not included as an independent class in the CORINE LULC subclasses. Therefore, the rate of temporal changes of pasture areas in the Eastern Black Sea Region may not be the same for summer pasture areas. Still, the decrease in pasture areas in Eastern Black Sea Region can be seen as a negative effect of the tourism policy on summer pasture.

Table 2. Temporal changes of pasture areas for Eastern Black Sea provinces and Turkey

	2006		2012		2018		2006–2018	
	Area (ha)	% of province's total area	Area (ha)	% of province's total area	Area (ha)	% of province's total area	Area (ha)	% changes
Artvin	358.89	0.05	205.2	0.03	205.2	0.03	-153.69	-42.8
Giresun	2,569.43	0.37	1350.06	0.20	1,350.06	0.20	-1,219.37	-47.4
Gümüşhane	17,469.64	2.63	16226.3	2.45	16,226.3	2.45	-1,243.34	-7.1
Ordu	441.34	0.08	1293.87	0.22	1,261.39	0.22	820.05	185.8
Rize	2,303.05	0.61	2518.92	0.67	2,518.92	0.67	215.87	9.3
Samsun	8,740.7	0.95	8987.05	0.97	8,839.13	0.96	98.43	1.1
Trabzon	27,779.7	6.07	26077.96	5.71	26,077.96	5.71	-1,701.74	-6.1
Total (7 provinces)	59,662.75	10.76	56659.36	10.25	56,478.96	10.24	-3,183.79	-5.3
Total (Turkey)	1,975,568.09	2.63	2,041,781.25	2.73	2,009,092.50	2.69	33,524.41	1,70

4. EVALUATION OF THE EFFECT OF LEGALIZATION POLICY ON SUMMER PASTURE

As a developing country, settlements in Turkey are expanding due to increasing population. As in many other countries in the world, Turkey developed various policies to address problems of informal settlements in both urban and rural areas paralleling to programs [UN 1999; Mukhija 2001, World Bank 2003; EU 2004) and policies (World Bank 1993; de Soto 2000; van Gelder 2010) of international organizations such as World Bank, United Nations, and European Union which consider tenure legalization in informal settlements as one of the fundamental conditions for economic development. The number of informal structures (former slum houses) in Turkey started to increase from the early 1950s and reached to 2.2 million in total in early 2000s (Table 3). The numbers of informal structure given in Table-4 only refer to the structures which are built by occupying a land that do not belong to the structure owner. By condensing on the development regions of urban areas, these structures prevent the development of cities and eliminate the agricultural and forest areas (Uzun and Colak 2007). On the other hand, according to data published by Ministry of Environment and Urbanization (MEU), approximately half of the 26.4 million condominiums (individual building unit) in Turkey are considered as informal structure (MEU 2018). This means that these structures do not conform to zoning/building regulations or owners of these structures do not abide by the formal administrative processes.

When Turkey's development plans are examined, it is observed that reason for increase in the number of informal structures/settlements in the country is frequently explained by late completion of cadastral studies, content/quality problems of the cadastral data and late preparation of the Pasture Law. For example, in the 7th development plan covering the period between 1996 and 2000, it was stated that a legal improvement could not be performed in order to regulate the proper use of pasture and summer pasture areas, and it was aimed to enact a Pasture Law in the plan period to fill this legal gap. In the same development plan, it was also stated that the exclusion of the treasury land out of

cadastre studies has resulted in the occupation of these land over time and being subject to private property so the cadastral maps should be updated and the boundaries of the treasury land should be represented on the cadastral maps (OG 1995). In addition, in the 6th development plan covering the period between 1990 and 1994, it was expressed that the cadastre studies must be completed as soon as possible in order to determine the boundaries and solve disputes in the forest areas, which often include summer pasture areas (OG 1989). The Pasture Law enacted in 1998 and projects by GDLRC such as completion of cadastre and establishment of land information system initiated at the early-2000s were results of the development plan targets into practice (Döner 2015; Aksu and Iban 2017; Yildiz and Erden in press; Aydinoglu and Bovkir 2017). Still, an ongoing need for registration of summer pasture areas was specified under the heading of policy and measures in the last (11th) development plan, which covers the period between 2019 and 2023 (OG 2019).

In Turkey, adoption of the legalization policies has been preferred to address the informal structure/settlement problem frequently mentioned in development plans so far. (Gürbüzürk 2017; Cengiz et al. 2019; Arslanoğlu 2019). The laws, which were put into practice to legalize the informal structures/settlements in Turkey, are given in Table 4. When Table-5 is analyzed, it is understood that a total of 16 laws enacted between 1948 and 2018 include provisions to register the informal structures on the areas in cities and rural areas. Apart from these laws aiming to legalize informal structures directly, there are 7 other laws that provide infrastructure including electricity, water, and roads to the informal structures. It is broadly accepted that the policy of legalization of informal settlements has not provided a solution to the social, legal, economic and environmental problems arising from the informality in Turkey, but further increased the number of informal structures by creating new legalization anticipation for future (Dilbaz 2010; Kasparoğlu 2019; Çantali 2019; Polat 2019). The last law given in the Table-5 is of great importance both for being more comprehensive than the previous laws and for having a great impact on summer pasture areas that are the subject of this article.

The law numbered 7143, which came into force on 08.05.2018, was announced as 'Development Peace'. This law was oriented for informal structures in urban and rural areas built before 31.12.2017. The law made it possible to register the informal structures into land registry by providing a Structure Registration Certificate (SRC) as a result of the application of the informal structure owner. Moreover, owners of informal structures built on the state land have the right to apply for SRC. The main benefits of SRC to informal structure owners were as follows: (1) canceling of previous demolition decisions for informal structures, (2) providing infrastructure including electricity, water, and roads and (3) providing security of property by registration. The deadline for SRC application was initially determined as 31.10.2018, but with an extension was 15.06.2019. The deadline of payment for SRC was 31.12.2019. SRC applications were collected on the basis of the declarations of informal structure owners by e-Government application via the internet. After confirmation of payment, SRC was prepared and delivered to the owners. One of the main purposes of the law was declared as legalizing informal structures. Another purpose of the law was to provide the economic resource needed for urban transformation projects.

Although the law was announced as a 'peace' law, it is clear that it provides an 'amnesty' for informal structures in practice. The weak control mechanism of the law has been severely criticized so far (Uşak and Yalçın 2019; Boz and Çay 2020). That is, in order to obtain a SRC it was sufficient for the owner of the informal structure to declare that the structure was built before 31.12.2017. Checking this declaration in the field is only possible when an official complaint was made. According to the law, as a result of the field inspection based on the complaint, if it is understood that the declaration of the informal structure owner is not correct, a criminal complaint is filed against the owner. After the law came into force, there has been a rapid increase in the number of informal structures especially in the pasture and summer pasture areas in the Eastern Black Sea Region. Some have started to build new structures on summer pasture areas and applied for SRC by declaring the structures were built before 31.12.2017. When this was understood, an order was sent to the governorships by MAF and it was stated that these structures must be considered as illegal according to the Pasture Law.

Following this order, SRC cancellation and demolition process was initiated for the illegal structures.

For example, number of the structures demolished in summer pasture areas in Trabzon and Gümüşhane was 160 and 91, respectively, because of illegal application for SRC. In the statement made by MEU, it was announced that approximately 7.4 million applications were made to receive SRC, and that 20158 of these applications were canceled due to violation of the law numbered 7143 (Döner in press). MEU further announced that checking of SRC applications is continuing and criminal complaints will be filed for illegal applications (AA 2020). As a result, the law, which aims to provide a peace between the owners and the state by legalizing informal structures, caused an increase in the number of informal structures and new legal problems in summer pasture areas due to its weak control mechanism.

5. CONCLUSION

LULC in summer pasture areas of Turkey has changed over time by transforming to built-up areas. In this study, tourism and legalization policy of Turkey are evaluated to have an effect on this LULC change. One of the main reasons for this effect is that the Pasture Law could not be put into practice until 1998. Until this date, the existence of different institutions given responsibility with various laws for summer pasture areas caused the land use rights and boundaries of these areas not to be registered. Although the Pasture Law defines certain rights and restrictions in the use of summer pasture areas, human activities on the summer pasture areas do not comply with the definitions in the law. Actually, summer pasture areas have been allocated to the use of a certain village for transhumance since the Ottoman Empire period. However, especially after the 1990s, the villagers interpreted this use right as a property right inherited from their ancestors and started to build structures not related to transhumance on the summer pasture areas. In fact, it is not possible to establish private property rights on the summer pasture areas according to current legislation. For example, the Civil Code states that the validity period of use right (usufruct) is limited to the lifetime of beneficiary and this right cannot be transferred to heirs of the beneficiary. Accordingly, there is no legal basis for structures on summer pasture areas, except those permitted by the Pasture Law.

Table 3. Change in slums houses and population in Turkey (DPT 2007; TUIK 2020)

Year	Number of slum houses	Urban Population	Urban Population (%)	Population	Rural Population	Rural Population (%)	Population
1955	50,000	6,927,343	25.0		15,702,851	75.0	
1960	240,000	8,859,731	31.9		18,895,089	68.1	
1965	430,000	10,805,817	34.4		20,585,604	65.6	
1970	600,000	13,691,101	38.5		21,914,075	61.6	
1980	1,150,000	19,645,007	43.9		25,091,950	56.1	
1990	1,750,000	33,326,351	59.0		23,149,684	41.0	
2002	2,200,000	44,006,274	64.9		23,797,653	35.1	

Table 4. Laws aiming at legalization of informal structures in Turkey

Year	Law Number	Description
1948	5218	Provide provisions to register the informal buildings in the capital Ankara for a fee to be paid to the municipality
1948	5228	With this law, scope of the previous law, was extended to cover the whole country
1949	5431	Provide provisions to register informal structures that conform to zoning regulation and to destroy others
1953	6188	It repealed three previous laws. With this law, the informal structures of people residing within the municipal areas for 2 years have been registered
1959	7367	Provide provisions to allocate the state land to the municipality to prevent informal settlements
1963	327	With this law, it was possible to provide infrastructure including electricity, water and roads to informal structures built before 1962
1966	775	The definition of 'slum houses' was given for the first time in this law. These structures were divided into 3 groups (will be demolished, rehabilitated and protected)
1983	2805	Name of the law was Zoning Amnesty Law. It covered structures built before 1981. An allocation deed was provided to owners of the informal structures
1984	2981	With this law, in areas where cadastral maps and zoning plans are available, instead of allocation deed, a title deed was provided for informal structures by approving of the municipality or the governorship
1986	3290	Some articles of the law numbered 2981 were modified. In this way, it was also provided amnesty to the informal commercial structures
1987	3366	This law extended the scope of laws numbered 2981 and 3290. It provided provisions to document a title deed instead of a deed allocation deed for informal structures
1988	3414	With this law, the article of the law numbered 775 prohibiting the sale or transfer of informal structures for 20 years was repealed
2001	4706	This law aimed to transfer the state land to the municipalities provided that the state land was sold to owners of informal structures
2012	6306	This law provided a provision that the law numbered 2981 be repealed in 2015.
2015	6639	The validity period of the law numbered 2981 was extended until 2018.
2018	7143	With this law, it was aimed to provide a registration certificate to the informal structures built before 31.12.2017 in urban and rural areas with a temporary article added to the Zoning Law.

In Turkey, the use of summer pasture areas in tourism activities started in 1990 by declaring summer pasture tourism centers based on the Tourism Promotion Law. The number of these centers, which was 12 in the Black Sea Region at the beginning, has now increased to 21, 18 of which are in the Black Sea Region. With the '2023 Tourism Strategy Action Plan' prepared in 2007 it was targeted to establish 'a summer pasture zone' in the Black Sea region and provide necessary infrastructure for the zone by the end of the 2013. To achieve this target, the Ministry of Development launched the 'Green Road Tourism Project' in 2013. With this project, it was aimed to connect the summer pasture areas of the provinces each other in the Black Sea Region by road. As of 2019, 1300 kilometers of road construction and improvement work has been carried out for the project, which consists of a total of 4000 kilometers of road network. The remaining 2700 kilometers road network is planned to be completed by 2023. CORINE 2006 and 2018 land cover statistics were used to assess land LULC changes across Turkey and provinces of 'summer pasture zone'. Accordingly, pasture area increased by 1.7% in area in the country, but it decreased by 5.3% in area in the summer pasture corridor provinces. Main aims of Turkey's summer pasture tourism policy are highlighting alternative tourism activities, expanding the normally short summer pasture tourism season to whole year, facilitating the transportation of the local people for transhumance and improving the income level of the rural areas. However, income-oriented tourism policy of Turkey combining with inadequate supervision had negative effect on summer pasture areas. A policy to ensure sustainable use of summer pasture areas by

considering the protection-use balance is needed in Turkey.

Illegal settlements are expanding in the summer pasture areas where transhumance activities were carried out traditionally in the past, mainly due to the increasing transportation facilities and tourism activities. Another important reason for inappropriate land use in the summer pasture areas is the legalization policy of Turkey. Paralleling this policy, 16 legalization laws have been put into practice between 1948 and 2018. The long-term effect of the economic oriented policy and legal regulations on urban and rural areas is the increasing number of informal structures. The last legalization law that came into force in 2018 was prepared to cover more informal structures compared to previous laws. 7.4 million applications were made to MEU to take advantage of the law granting the right to apply to all informal structures (excluding exceptions defined in the law) built before 2018 in urban and rural areas. There was a rapid increase in the number of informal structures on the summer pasture areas in the Eastern Black Sea Region after the date the law came into force due to the absence of an effective control mechanism. With the intervention of MAF, the new informal structures built on the summer pasture areas in violation of the Pasture Law have started to be determined and demolished. Later, it was declared by MEU that a commission was established to detect the illegal applications and the demolition of the structures will be completed as soon as possible. As a result, the legalization policy led to the formation of new informal structures and change of LULC in the summer pasture areas.

Studies to register the legal status of the summer pasture areas should be completed firstly to ensure sustainable use summer pasture areas in Turkey. From both an economic and a social point of view, it doesn't seem to be possible to be demolished all the informal structures in the summer pasture areas immediately. Instead of the legalization policy, an effective management policy, for example permitting certain structures in accordance with traditional architecture, should be adopted with an amendment to the Pasture Law. Finally, advanced GIS techniques, spatial modeling and utilization of satellite images should be employed in the ensuring effective control of the LULC changes in the summer pasture areas.

Conflicts of interest

The authors declare no conflicts of interest.

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